UNITED STATES DEPARTMENT OF TRANSPORTATION
Pipeline and Hazardous Materials Safety Administration

Field Hearing on
Reauthorization of the Department of Transportation's
Hazardous Materials Safety Program

Before the
House Committee on Transportation and Infrastructure
Subcommittee on Railroads, Pipelines, and
Hazardous Materials

Written Statement of the
U.S. Department of Transportation

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WRITTEN STATEMENT

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BEFORE THE

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS
U.S. HOUSE OF REPRESENTATIVES
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Introduction

Chairwoman Brown, Ranking Member Shuster and distinguished Members of the Subcommittee, thank you for the invitation to appear today.

Secretary LaHood and I regard the safety of America's transportation system as our highest priority. When I last testified before the full Committee on September 10th on PHMSA's Special Permit Program, I made a commitment to the Pipeline and Hazardous Materials Safety Administration's (PHMSA) mission to put safety first in its duty to protect people and the environment from the risks inherent in hazardous materials and pipeline transportation. As you know, we developed a step by step plan to aggressively address the issues raised by the Committee and the OIG Advisory on Special Permits. I can report that the agency is making great strides in completing each action item.

Most recently, we developed an Action plan for IT Modernization and Data Collection and Analysis. This plan will modernize our IT hardware and software and develop the capacity to effectively collect and analyze data.

Today, I would like to address two safety issues highlighted by the National Transportation Safety Board (NTSB) and members of this committee – the risks posed by the transportation of lithium batteries, particularly on board aircraft, and safety problems associated with the transportation of flammable liquids in unprotected product piping on cargo tank motor vehicles, known as wetlines.

Lithium Battery Regulation

In 2008, an estimated 3.3 billion lithium batteries were transported worldwide by all modes of transportation, including passenger and cargo aircraft. Lithium batteries are regulated as hazardous materials because they can overheat and ignite in certain conditions and, once ignited, can be especially difficult to extinguish. Moreover, a lithium battery is susceptible to thermal runaway, a chain reaction leading to self-heating and release of its stored energy.

Incident information gathered by the Federal Aviation Administration (FAA) on 90 incidents occurring from 1991 to 2008 indicates that over a quarter (27 percent) of these incidents involved lithium batteries. Of the lithium battery incidents, 73 percent resulted from internal or external short-circuiting; 12 percent from charging/discharging; 6 percent from unintentional activation of devices; and 9 percent from causes such as malfunction of devices or improper handling of cargo.

Most types and sizes of lithium batteries are currently regulated as Class 9 materials under the DOT Hazardous Materials Regulations. The batteries themselves must pass a rigorous set of performance tests intended to demonstrate that the battery can withstand conditions encountered during transportation and can also withstand certain types of abuse. In addition, most lithium battery shipments are subject to stringent packaging and hazard communication requirements. Further, the regulations prohibit the transportation of most metal lithium batteries as cargo on passenger aircraft. The prohibition resulted from FAA testing indicating that current aircraft cargo fire

suppression system would not be capable of suppressing a fire if a shipment of metal lithium batteries were ignited in flight.

The NTSB investigated a February 7, 2006 incident at the Philadelphia International Airport in which a fire – suspected to have been caused by lithium batteries – destroyed a United Parcel Service cargo aircraft and most of its cargo. While the captain, first officer, and a flight engineer evacuated the airplane after landing, sustaining only minor injuries, the NTSB concluded that flight crews on cargo-only aircraft are at risk from in-flight fires involving lithium batteries. Following the incident investigation, the NTSB issued five recommendations to PHMSA. Of particular concern to the NTSB and to DOT are shipments of small lithium batteries that currently are excepted from certain regulatory requirements.

Wetlines

Wetlines are rigid aluminum piping on a cargo tank motor vehicle used to load and unload products such as gasoline, diesel fuel, and other petroleum or medium-risk flammable liquid products. Because of their location, wetlines are extremely vulnerable to damage in a crash and are designed to shear off at the emergency valve in order to protect the integrity of the tank. Typically, if the product piping is empty there is no release of flammable product. Problems are usually encountered if the lines are "wet," potentially leading to dangerous amounts (about 30-50 gallons) of spilled flammable liquids at the accident scene.

In 1998, the NTSB recommended the Department prohibit the transportation of hazardous materials in wetlines. The Department recognizes the safety risks associated with wetlines and we take the NTSB's recommendation on wetlines very seriously.

Recently the Department completed an in-depth, comprehensive review of incident reports and other safety data to determine whether rulemaking action to reduce the risks associated with the transportation of hazardous materials in wetlines is necessary. The

review included a detailed examination of incident reports over the last 10 years involving cargo tanks transporting flammable liquids to assess the severity of the risk and determine whether there are safety problems that warrant rulemaking or other action.

The review encompassed 6,800 incidents involving cargo tanks transporting flammable or combustible liquids that occurred during the 10-year period from 1999-2009 and identified 184 incidents in which wetlines were determined to be damaged and/or ruptured. A total of 18 of these incidents involved fires. A total of 13 fatalities and 7 injuries were associated with wetline incidents over the ten-year period. Of these, our initial conclusion is that 6 fatalities and 7 injuries resulted directly from the wetlines release. However, we continue to review the direct cause of the remaining 7 fatalities.

Based on this incident analysis, our assessment of newly available technologies to remove lading from product lines after loading and the consequence of event, we now believe that a rulemaking to prohibit the transportation of flammable liquids in wetlines can reduce the safety risks associated with such transportation without imposing undue cost burdens on the regulated community. Cost benefit analysis is important to our consideration for regulatory action, but we will also consider the potential risk and consequences of more severe accidents. We plan to issue an NPRM in 2010.

Conclusion

Madame Chairman as you can see, the Department is working diligently to reduce the risks posed by the transportation of hazardous materials in commerce and to improve the effectiveness of PHMSA's safety oversight responsibilities.

Let me close by recognizing this Committee's leadership, particularly Chairman Oberstar and you, Madame Chair, in improving wetline and lithium battery safety in the draft Hazmat reauthorization bill. We look forward to continuing to work closely with

you to improve tanker truck safety and reduce the dangers of transporting lithium batteries.

Thank you again for the opportunity to testify at today's special field hearing and I am happy to take your questions.

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